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PSYCHO STYRENE

The Journal of SCI-FI, Fantasy, & Horror Modelling

Ghost Busters Proton Gun

Dark Elf Customised

Nosferatu Review

Model Photography Revealed

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Data Burst

By Geekbot

Hi people and welcome to issue 3 of Psycho Styrene, we have a great magazine for you this time along with our usual features and sections we have the first part of our interview with model making legend Martin Bower. Ok enough with the shameless self promotion here and on to the editorial bit.

Ok while skimming around the interweb this month I have noticed a trend that seems to be spreading, Now may be it's because of the looming dread of the summer holidays (please no renditions of that song you know the one) or the "credit crunch" hitting peoples pockets but there seems to be a lack of activity on the forums of late. What's more disturbing than this to me regarding our favourite hobby is that several people I have spoken to of late seem to have drifted from the light of modelling, to the darker realms of the hobby world.

Know I'm not saying all message boards/forums are this way but a lot of them are rapidly going the way of lets put people down who are trying something different, I have had first hand knowledge of the put down and "nay-saying" of a lot of people on the message boards followed by the no offense meant reply. This has left me wondering if the lack of activity on the boards/forums is not in some way a result of this attitude? I also realise that you can't force people to post items on these boards and again this is not all of them, there are many really good ones out there but a lot of them may as well be called showcases these days for the help and advice that is on them.

How are modellers new to the hobby suppose to learn about the hobby if no one wants to give up their hints and tips to the new comers and just be look how good I am. This is just a thought but should we be encouraging new hobbyists into the fold not pushing them away by have people going look how good I am, and I ain't going to tell you how you could be too, let me know what you think here well that's my rant for another issue hope to see you all next time

Front Cover By Martin Bower
Rear Cover By David Bennett

This Issue

Data Burst	2
Dark Elf	4
Snapping Plastic Part 1	7
Martin Bower – Modelling Legend	10
Nosferatu from Monarch Models	15
Readers Gallery	16
“GHOSTBUSTERS” particle thrower build	19
Silicone Screams	21
How to Skin a starship!	28
Making A Padd	31
Resources	33
Pin Up	35

Out of the Box

Dark Elf

By Jacqueline Malins

I love this kit for its potential to convert in many ways and having built two of these elf models before I decided this time to make her in a mid battle, semi kneeling position, with sword and shield. For this I needed to change the position of one arm, a foot, and both legs. Starting with the arm I cut just below the elbow (taking into account there is a pattern on the sleeve I did not want to lose) and turned it so that the sleeve would hang down I then pinned and glued it in place and filled the gap and join with Milliput. The cuff also had a kink in it where the sword would lay had it been built as originally cast, so I heated the folds/creases and gently pulled them down - suffice to say the resin did split but I filled and smoothed out the cuff with Milliput and re-sculpted in the detail round the edge. For the left leg, I cut at an angle at the knee and cut a V piece from the foot, so that I could position it to be flat (I decided on this option - rather than repositioning with the toe on the ground and the heel up - to give better balance and stability to the model). I glued the cut piece into position and filled the gap in the foot with Milliput. The photo below shows these stages of conversion

As the sleeved part would now join at a different place on the upper arm, I sanded back the zig zagged join on the upper arm with the Dremel and sanding tool and glued and pinned the sleeve in place and filled in the gaps at the join with Milliput. I then fitted and secured the top thigh part of the left leg to the hip with pins and glue, then, using a bent paper clip, I pinned the lower shin part to the top thigh part at the knee. As this leg would govern where the right leg would be positioned, I placed the model on a flat surface (kneeling it on the one knee) and bent it into the correct position so that the leg from the knee was flat to the surface, before applying a little superglue to hold it in shape. I then filled the join and gap with Milliput and reformed the back of the knee. The small seam join round the hip was filled with filler putty and when dry, all the joins were sanded down and smoothed. The model was beginning to take shape, and thus far had been easy going - most of it down to advance planning

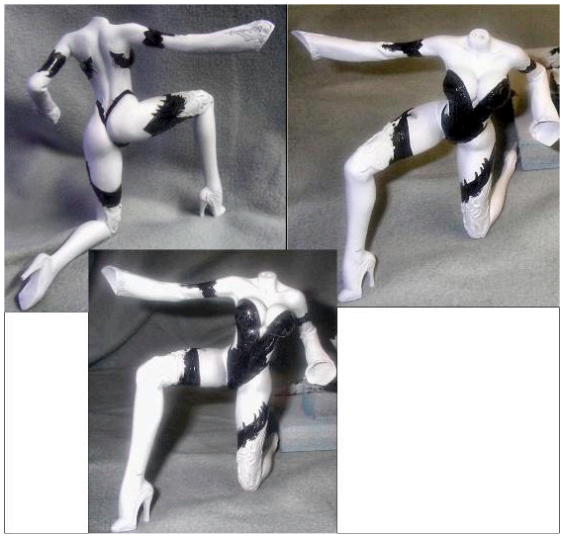
The right leg had caused the most head scratching, as the boot detail finishes high up the thigh and I didn't want to cut through this, so I considered 2 options - the first, I could pin the leg at the hip but sideways so that it [the leg] stuck out in front, leaving the top of the hip to be sanded away and the hip and buttock re-formed with Milliput. That would have meant making only one cut at the knee, for the bend. However, as I seem to like making work for myself and the fact that it didn't 'feel' right or possibly wouldn't give a true feeling of movement, I decided instead to undertake the tricky task of cutting down at an angle, through the hip/thigh and using the hip part to rejoin the leg (see photo below – the dotted lines showing where the cuts were made). After cutting the V piece away from the back of the knee, I worked on the hip part. I glued and pinned it in place, as it would have been with normal build, ready for the next stage

I filed and sanded down the hip, where it had been cut (bearing in mind this figure has exceedingly wide hips, there's a danger of making it just look fat by changing it!), this also

meant the buttock was too far back for a forward stance, so I sanded this down too and reshaped it so it was no longer level with the other buttock and was right for a striding forward movement. This stage required constantly matching up and sanding the thigh and hip to get the right shape for a join, whilst holding on the lower part of the leg to ensure all three parts would sit correctly. Once I'd got an idea where everything would go, I inserted a bent pin into the 2 leg parts, at the knee, to give a temporary

join which I could move into the correct position. Positioning and holding the thigh to the hip, I marked round it with a pencil, leaving a C shaped mark on the side of the hip. Using the Dremel with a grinder bit, I ground out the C shape, so that the thigh could be embedded into that slot. When I was happy with the position and fit, I set the leg at the knee, turning it slightly so that the foot sat at an elegant angle and filled the join with Milliput, and reshaped the knee

With the thigh part glued on, I drilled through in 2 places and pinned it in position, filling the holes with a little putty. My model was looking good! I was pleased to find the effort had been very rewarding as she balanced beautifully - all without the aid of strings or a safety net!
After attaching the second arm, I sanded and smoothed the joins and repaired a few minor flaws in the resin from casting. My Elf was now ready for her bath, primer and edging with black enamel paint prior to starting skin tones



And now for the head... Something different for this Elf - real hair! Initially I had intended to use fur 'provided' by Malo, my westie, but the bits I 'borrowed' from him wouldn't be long enough for the length of the ponytail so I purchased a pure white, clip in synthetic hair extension. First though I had to remove the resin top knot of hair from the model and sand down and shorten the front piece (a long fringe, parted in the middle). I then drilled a hole in the top of the head where the ponytail would be inserted. I had considered a different method for the hair, whereby building up the front of the head with 2 part resin (the cut out bit where the front fringe sits) and just attaching the long, parted fringe to the built up, top/front of the head but went with the original piece as it has a good shape and this was the shape I wanted the hair to be

Whilst planning how to style the hair and how best to secure it, I moved on to the belt (we'll come back to the hair later). The belt/fauld and tasset provided for the model is pretty cool, but unfortunately would sit at an odd angle over the hip and not segue nicely from the waist to the thigh in this 'kneeling' position. I had intended to cut off and use at least the top part of the tasset and build upon it but I found this was going to be too wide for what I had in mind, so I made a belt piece from a strip of black leather and painted on the studded design detail with silver metallic enamel paint and for the backplate of the belt I used stiff card and formed the detailing with small pieces of card, cut and formed to shape and glued on - these would form the metallic studding & detailing as on the original. I then painted the belt in black and finished with the silver detailing. Using a piece of black satin, I measured it up and cut it into a long rectangle, I then doubled it and sewed and hemmed it. Before adding the gather at the top, I placed a piece of card in it, and painted on the detailing in silver enamel paint. When dry, I removed the card, made the gather, and added a thin piece of wire across the bottom of the tasset - pushing it through, so that it is inside the material - this will mean the wire can be bent around to give a flowing shape to the tasset at the bottom - as if caught in the breeze. The satin was then glued in place to the back of the belt

I now needed to think about the look of my model - I was aiming for a dark, Gothic feel, so I started with the face (I generally start with the faces first as this usually influences me on how the overall model should progress from there - its personality, as it were). The basic flesh tone was

applied first - the same on the body and hands - and then a light wash of a lightened mix to give a natural, pale flesh tone. I highlighted above the brow, under the eye, down the centre of the nose and creases of the ears with a light tone, and using a little raw sienna with the mix, I swept it down the sides of the face and just under the eye, onto the cheekbones, and a little around the chin and in the ears. Once the flesh was finished on the face, body and hands, I started work on the eyes. Firstly painting heavy black lines around the upper and lower lids along the lash lines, and mixing black with burnt umber I painted in the eyebrows, giving them a slight arch. The eye area (below the brows, and over the upper lid) were painted in a dark, smoky grey, fading to lighter grey towards the outer eye area, and the outer part of the eye socket was painted in a violet colour, sweeping upwards and outwards (inverted V shape) from the upper lid to the outer corners of the eyebrows. Next I mixed some bone white, titanium white and a touch of Payne's grey for the whites of the eyes, and then placed the irises using black (as before with my other models). The iris area around the pupils I painted in a china blue - darker towards the top, and lighter towards the bottom. Once the pupils were tidied up and the eyes finished, I gave them a coat of Tamiya Clear to complete the look. For the mouth, I painted a black line around the lips and used dark scarlet as a fill colour, highlighting with darker and lighter on the lower lip. I finished with a little Tamiya Clear on the innermost part of the lips to make them look naturally moist but not glossy - I wanted the 'lipstick' colour to be flat, not shiny Finally, I finished the choker detail with pewter enamel paint and a spot of Humbrol Clearcote clear red enamel over a silver base to make a 'ruby'

The outfit was finished in black gloss enamel paint (at this stage, she looked as if she was wearing a costume fashioned from a black bin liner!) and then sprayed off with Testors Dullcote - much better! Now it looked like leather! The filigree detailing was painted using the metallic pewter enamel paint and the whole thing given a wash of grey in the creases and sparsely dry brushed with black acrylic paint. The fingernails were painted in the same colour as the lips and finished with Tamiya Clear. The 2 diamond shapes on the pauldron's were also given 'rubies', as with the choker - the photo below was taken prior to the addition of the gems on the pauldron's

As a dark elf, she would now require some fancy weapons! The kit comes with a sword and a dagger, which is designed to be held as one weapon behind her back, but for this model I used only the sword. The handle was painted in pewter and gold and aged and tarnished by dry brushing with black and the blade painted using Humbrol Metalcote, polished up

once it had dried. For the impressive finishing touch – and for that extra glint - I cut 2 strips of Mirror on a Roll and cut them to the shape of the blade edges, sticking them to alternate sides - very nice! Well pleased with the result!
She now needed a shield to match. Having searched through a number of images for an idea of design, I settled on making a shield based on Lolth... but then spotted that the Lineage II The Kamael logo, when turned upside down, resembled the face of a hawk or some bird of prey, or depending on how you view it, can also look like a spider!
Continued on page 26

Techniques

Snapping Plastic Part 1

By Roberto Williams

From as far back as I can remember I have had a deep passion for action figure toys. I have collected them, displayed them and obsessed over them for nearly the full duration of my 41 years. It was only natural, I suppose, that my love for these little "plastic people" (and their vehicles, spaceships, and play sets) would evolve into a desire to create / customize my own toys and ultimately to photographing them for posterity. After my earliest novice attempts at photographing my toys and miniatures (over 25 years ago), I quickly discovered that miniature photography was a very specialized art form. An extensive working knowledge of virtually all aspects of lighting and photography would be required to take nice photos. It seemed daunting at first however in no time all through trial and error I had learned enough about this field of photography to be able to produce some beautiful photos of my toys and miniatures. Trust me when I say, anyone can learn these miniature photography principles and techniques. Regardless of how intimidating and overly technical photography can seem to most people, it can be mastered by anyone with the desire and creativity to learn and to have some fun! Nothing beats the feeling of snapping a photo of your favorite action figure or miniature vehicle and having others marvel at the visceral power of the images you have skillfully composed! This article will explore all the technical information with which you will need to be intimately acquainted to take such photos so let us get started:

The techniques I will cover apply to all cameras (film or digital) and can be used to photograph virtually any miniature. First, I will need to present some general background photography information. This will help you to understand all of the photography terms that I will use later. Before you can take any pictures of your prized miniature you will need a decent camera. Now there are a myriad of cameras available out there but not all of them are appropriate for the type of photography that is employed when photographing small scale action figures, vehicles and dioramas!!

What type of camera?

Polaroid:
The Polaroid or "Instamatic" camera has been around for decades. An extremely good camera for framing your shot as it let you quickly take a picture and see what you are going to get before you take a final photo with your main camera. Professionals use these all the time in their work; these are not really any good for model photography as you don't really have the ability to manually focus and the quality is not the best.

Pocket Cameras:
We've all seen them used virtually everywhere and anywhere that someone wants to take a quick picture with their pals. They come in many varieties from the inexpensive throw away cameras, to the higher-end point and shoot systems. The question is can you make that model on your shelf look really good using one of them? The answer generally is no. These cameras use a viewing system known as a rangefinder, that means that when you look through the eyepiece to snap a photo the framing is roughly in the range of what the lens will see but not exactly the same thing this difference is known as a parallax connection, it is not that critical when you are several feet away from the subject but when you are

mere inches away that difference will be huge in the final photo.

Single Lens Reflex (SLR)
The Single Lens Reflex camera (SLR) as it's name suggests gives the photographer the exact framing that the lens sees Thus making framing of a small model easier The most common commercial format for an SLR is 35mm. These types of cameras have removable lenses that allow lenses with different focal length lens to be swapped depending on what is to be photographed.

Digital Cameras
The introduction of the digital camera is quite possibly the greatest boon to the miniature photographer these cameras combine the potential "point and shoot" ease of a compact with the high image quality and framing accuracy of an SLR. Typically these cameras are equipped with a zoom lens that lets you cover all views from as wide as 28mm to 150MM and beyond.

Now that you know a little bit about cameras, by now you will have some idea of what system (SLR or digital) to you will want to use. Now you'll next need to have a idea of lenses there are 5 main types of lenses available for use, these are wide angle usually between 28mm to 50 mm, the standard focal lens usually 50mm, the telephoto lens normally from 70mm and beyond the variable focal lens which ranges from a wide angle to telephoto in one lens, and would normally be in the range of 28 to 70 mm and finally the macro lens, which is most useful to model photographers. The Macro lens is used to describe any lens that is used for close photography allowing the lens to physically get close to the subject being photographed. Some of the finer Macro lenses allow the Photographer to get as close as 1 inch away from his intended subject with a perfect focus.

One of the problems that many pictures of models and miniatures suffer from is poor focus, while understandable, focusing on items this small is not an easy thing to do and you'll need to know some basic focusing techniques. When dealing with macro photography you're going to run into the dreaded problem known as Depth of Field (Play Scary music here) Depth of Field is the area immediately in front of and immediately behind your point of focus that also seems to be relatively in focus. With a macro lens, the depth of field is incredibly shallow which means that if you're about to photograph your Batman model (full body shot that fills your frame), and you have very carefully focused on his face, there's a really good chance that anything past, say, the back of his head (about .25 inch from the point of focus) will be completely blurred with a wide angled lens, the depth of field is considerably deeper. This lens lets you get pretty close up onto your subject (although not as close as a macro), and your area in front of and behind your point of focus will be pretty sharp. The only trouble is, when you get close to something using this type of lens, there's usually a bit of distortion of the subject. If you're creative in your framing, you can actually make that distortion work for you by adding enhancement, excitement and drama to your composition)

Another factor that determines your depth of field: It is the aperture that your lens is set at, aperture is simply a term used to describe the size of the camera iris opening Aperture settings are usually found on your camera's lens or in the menu on digital models, they are often referred to as F Stops and have oddly enough an F in front of the number for example F16, F11 this is used to control the amount of light that enters the camera and allows you control over the exposure of the picture. Aperture effects depth of field in that the smaller your aperture, the greater

For example your light meter tells you that your action figure will look properly exposed under the current lighting conditions at an aperture opening of F8 at 1/60th of a second, you wish to improve your depth of field in the final photo by "stopping down" (closing up) the lens shutter aperture to F2 well, simply increase your exposure time to 1/15th of a second to compensate and achieve a proper exposure. Some of the minimal lighting conditions on your miniatures photographed with the smallest lens aperture openings for optimal depth of field may require long exposures of several full seconds not second fractions to obtain properly exposed photos. With the shutter speed dial on your camera placed on the B setting meaning bulb the shutter remains open for as long as you hold the shutter release button depressed.

your Depth of Field. and the larger your aperture well the shallower your Depth of Field. Sometimes, the miniature you are photographing has a minimal amount of light on it requiring a more open shutter aperture during exposure this, of course, will mean a shallower depth of field if you want a properly exposed photo if you close down the shutter opening to improve your depth of field, you'll end up with a photo that is far too dark.

So your choices for maximum depth of field in this scenario are to add more light to your subject, which will justify a smaller shutter opening and consequently a better depth of field your final photo will be properly exposed not too dark. But what If you are going for a dramatic lighting effect. That extra light will kill the effect you can still maximize your depth of field by compensating for the minimal amount of light entering the camera during exposure by increasing exposure time to ensure a properly exposed photo.

Note: this type of long-exposure photography absolutely requires a good, sturdy tripod, and a cable release to avoid all possible movement and or vibration of your camera which would blur your shot now unfortunately only film cameras with manual controls allow the type of exposure control described here Even though digital cameras can take some awsome photos of your models, they tend to be fully automated and do not allow exposure control to this degree as you can see, miniature "Macro" photography presents a unique set of problems! However, understanding the root of each problem makes you a better photographer.
Next Issue we will explore some photographic techniques

Next Issue

Issue 4 Out September 30th

Issue 4 of **Psycho Styrene** will see an influx of Tips, Interviews, Tutorials, Reviews, Readers Galleries, Kit Reviews and Scratch Builds. Some of the high lights will include:-

Scratch Build – An Iron-Man Helmet

Model Photography – Part 2 of Roberto's Guide to Snapping your Prize Kits

Restoring a Classic – We look at how to restore a classic model kit from the days of yore

Casting Conundrums – A Follow up to this Issues Guide to Mould Making

An Interview – with Martin Bower to finish off the one in this Issue

Aurora – A personal History of the kits by Mike Rutherford

50's Sci-Fi – A Cool Version of Robbie the Robot

Interviews

Martin Bower – Modelling Legend

By Darren Llewellyn

All pictures are copyright Martin Bower

How long have you worked in the film and television industry?

37 years this October! I have "branched out" & done many other things as well! My very first job was to build the signs for the P.G.TIPS Chimps commercial! I had to make these mini golf clubs & other golfing paraphernalia!

Were you an avid model maker before you started working?

YES! My Mum used to wonder where salt Cellars went as I'd used them to make Fireball Junior on my "Fireball XL5E models! Also I'd go round the supermarkets (they were just starting when I was a kid!) I'd get her to buy things that had interesting shaped bottles to create Spacecraft!

Did you scratch build models as a kid or just build kits?

Strangely enough I never built plastic kits! My Grandfather was Chief Electrician at the "Whitehall Theatre" in London and was doing a show that required a balsa wood door to get smashed in every performance. I therefore had a ready supply of balsa so I'd carve all these models! Some that actually flew! But then "SUPERCAR" came on TV and I thought that was "THE business"! So I made loads of models of it trying to get the shape right!

What was your favourite genre to model?

As I've said it was model spacecraft, Submarines, futuristic tanks and balsa model aircraft.

Have you always been a Sci-Fi and Fantasy fan or was that something you are know for because of the nature of the work you do?

Initially SF was only on the periphery of what I did. I LOVED reading "Dan Dare" in the "Eagle Comic" and books like "War of the Worlds" and "20,000 leagues under the sea"; but then I stated to realise Spaceships could be built from junk and all sorts of bits and pieces. I even used to get the valves out of old radiograms (remember them?) I'd put then in a cloth & burst them by crushing them in the vice. Once I'd done that I discarded the glass & I had these really interesting tiny little radar scanners and tiny intricate parts from inside which I stuck together to make satellites and all sorts of fine little spaceships.

How did you get your first break into the professional world as a model maker?
Well, strictly speaking I got into prop making through my Grandfather as he knew this company called "Stage Décor Ltd" I worked there in my summer holidays whilst still at school! It was there I did TV commercials as I've said and my first TV programme was helping to build the costume for the "THAMES TV's" production of "Frankenstein" - starring Ian Holme!

But that work did not last long and in the meantime I'd been making all these models out of junk. I had

built up a huge collection of models I'd built & often photographed over the years. When I heard "SPACE 1999" was being made I sent my photos to Gerry Anderson, but just got a note back saying "I got your Polaroids (which was odd as I'd sent him 10 x 8's?) phone my SFX Director Brian Johnson!" which I did. 2 days later I saw Brian Johnson, the Special Effects Director. I took along my huge Spacecraft I'd built after first seeing 2001 in 1968 when I was 16 & my photos and to my amazement he asked me to get the model out the car as he'd like to "shoot some test footage of it"! I was gob smacked! Anyway, he said he liked my work & that when a script came along that needed spacecraft, he'd call me. I went home in a state of absolute euphoria and about a week later I got the script for "Alpha Child"! He asked me if I could design an alien ship that he needed. I did the drawing and went to see him. He said "Right. Great. I need one 5 foot long model and one half that size and I need them in 3 weeks!"
Oh, and would I sell him my big spacecraft -the one he'd filmed? It was only then that the reality of building to a film schedule really hit me but I built the ships and got them to Bray Studios on time and that was how I started!

What was the first major feature you worked on?
The first feature film I did was "Lisztomania" directed by Ken Russell. It involved building this weird spacecraft with organ pipes for wings?! I had to build this little figure of Frankenstein, Hitler and Wagner all rolled into one which moved and fired a gun at the aforementioned ship!

Do you prefer to work on TV or motion picture projects?
There really isn't any difference. Both are pretty much the same.

You have worked on some of the most Iconic shows in Sci-Fi, Dr Who, Blakes7, Space 1999 and Alien did you get a free hand in the designs on these shows?
Yes, in many of the TV shows I designed the craft but sometimes on things like "Dr Who" I'd actually build ships knowing full well a BBC SFX Designer would come to my workshops and buy things off the shelf. That happened quite a few times! Most of the guns though were done with the SFX Designer giving me say a bunch of Garden Hose Adaptors and saying something like, "Can you do anything with these?!"

Did you do a lot of designs for the ships for Blakes7 and Space 1999?
Although the "Liberator" was designed by BBC designer Roger Murray Leach, I did ALL the main detailing on the large "Liberator" and built 2 more smaller 20 inch "Liberators" from scratch, as the largest model (built by "Space Models") was just SO heavy it could not be "flown" on wires. I designed and built the famous (infamous!) Teleport Bracelets and ALL the Troopers weapons, guns and rifles for

"Blake's 7". I also built a ship called "The Ortega" which was a joint design effort with Ian Scoones and 5 Federation Pursuit ships, also co-designed with Ian Scoones.

"Space 1999" was something else entirely. This was my first real feeling of what it was like to work to a tight schedule. I built 84 INDIVIDUAL models for that show over a 3 year period (with a break in the middle to film "Into Infinity" AKA "The Day After Tomorrow") I also DESIGNED 71 of those ships with no input from anyone else & got them to the studios on time!

I read that you worked on Terrahawks for Gerry Anderson Marketing doing a lot of the pre-production designs for the show?
That's right, I did.

The whole concept and the design of the vehicles changed radically from your original models and designs, is this a common occurrence?
No it isn't, & it was not for Gerry Anderson Marketing, it was just for Gerry. The work I did for them was designing and building the "STARCRUISER" which eventually came out as an "Airfix" kit. But I understand the Japanese had their own idea of what constituted a "good design". I also built another craft for a show called "RESCUE

4" which I built for Gerry, from a design by Brian Johnson.

I really don't want to labour this point too much, but I built "THE TOMAHAWK" and "THE TREEHAWK" for "Terrahawks", working solely with Gerry himself, even arranging 2 catalogues for him to take around the world as he wanted to get backing from the Japanese. I produced 2 covers for these sales Brochures: One had The Tomahawk on the cover and the other had a sexy puppet girl I'd made to sell another show. I got these catalogues printed and put together and gave them to Gerry, and he also asked if I would put one of my companies brochures in with the model to show the Japanese what "he" could do. I remember Gerry's return from Japan with great sadness. I was all hyped up thinking and hoping it had gone well. Instead, he said nothing about all the work I'd put in for him and instead launched into this tirade that "all I was interested in was promoting my own firm". He told me how dare I put MY company brochure in with HIS project. Needless to say I have never spoken to him to this very day.

Did you actually work on the show during its 3 season run?
NO.

I noticed from IMDB that quiet often you have taken on roles in films that you have not been credited for, do you ever feel let down when that happens?
YES! ALL THE TIME. I really am amazed at how little I get credited, but I've asked about this many times and get the same old answer "You're an outside contractor" and "they" don't get credited". Which makes a bit of a mockery of the pilot we did for a show pilot we did called "Into Infinity". I first built the 6ft & 3ft long "Altares" models and the "United Nations Shuttle" at my home workshops, plus most of the "Delta Space Beacon" in sections, then moved for 3 months to Bray Studios to continue the finishing of the "Delta Space Beacon" and several other satellites, & then join the SFX unit! Surely that counted as working at the studios AND I'd designed every single ship in the show but I still didn't get a credit.

What do you think has seen the biggest change in the art of visual effects over your career?
Well it has to be CGI (Computer Generated Imagery) there is no doubt that this has had a profound effect upon the films I generally work on and I've seen many people go out of business because of it. I have

been lucky ONLY because I was able to adapt to working with models that were not detailed and were only scanned so a computer created the final image. That kind of modelling does not interest me at all. It takes all the fun away! I also worked Giftware Industry working on sculptures for "Lilliput Lane" who make these little twee cottages that people buy in department stores. I did around 18 cottage models for these guys but then went to the U'S where I built over 30 College Football stadiums! Yes! The yanks will actually pay a pretty penny to take home a lump of plaster shaped to their team's stadium!
But after 30 of those, I went back just to films & TV both here & in the US.

Do you think that there is still a place for the traditional "arts" like model making and stop motion in the film industry today?
Absolutely, but I think the CGI should only be used IN CONJUNCTION with a model. "APOLLO 13" was an ideal example: A model rocket 25 feet high! but complemented with ice falling from the rocket added by CGI as it took off. If it ALL goes to CGI goodness knows what we'll do!

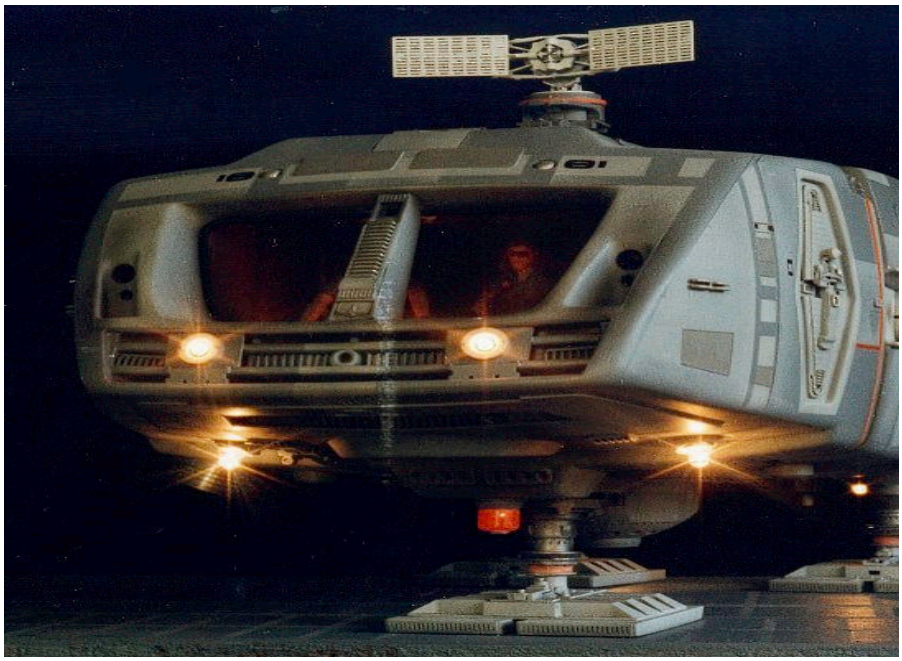
What would you say is the most important trait that people should have if they want to go into this profession?
Talent, A hide like a rhino, being able to work fast, and being able to diversify should the need arise.

In your career is it only models for film, television and print you have created or have you built them for other industries?
No, I've built models for "The RAF Museum at Hendon", models for "The Museum of Science and industry" in Manchester, models for the "Science Museum" in Toronto, & ships and smaller boats for shipping lines. These have included Motor Torpedo Boats (MTB's) Stealth equipment (which I cannot talk about) & the giftware industry as already mentioned.

I've also built models for artists to draw from: in other words building a 3D model which can be posed so that 2D artists can look at it from every angle and draw it correctly. Most recently I did this for the "SHARKMAN" comic in the USA.

I seem to remember a few years ago a female character of yours (melonie peaches I think) coming out as a kit, was that a one off or were there plans to make a series of such kits?
Her name was Meloni Peach (for obvious reasons!) she was built as what was intended to be a series of "Space Heroines". Sadly, my master model was damaged in transit to the mould-makers. Instead of sending it back for repair the mould-maker attempted to build up her flattened chest (as she had fallen forwards) His attempt ended up almost doubling the size of her chest making it THE most ridiculous shape! I disowned the whole project since nothing of what I had visualised was left

How did this kit come about and was it the only kit you have made?
The kit came about because I was asked by several resin kit fans to do some figures but I wish I'd never done them, as I've already said! They were EXTREMELY costly to produce and I never saw a penny in returns!



During your extensive career what would you say is the most bizarre project you have worked on?
Without a doubt building the models for the "Jif" desert toppings commercial! I had to sculpt raspberry, strawberry and chocolate squeezy bottles to 4 times their normal size! (so we could get Freon gas canisters inside them to give a jet blast as they launched!) Mind you, there was the "Malibu" bottle

spacecraft which took 3 months to build, but was only on screen for 3 seconds! That comes in a close second!

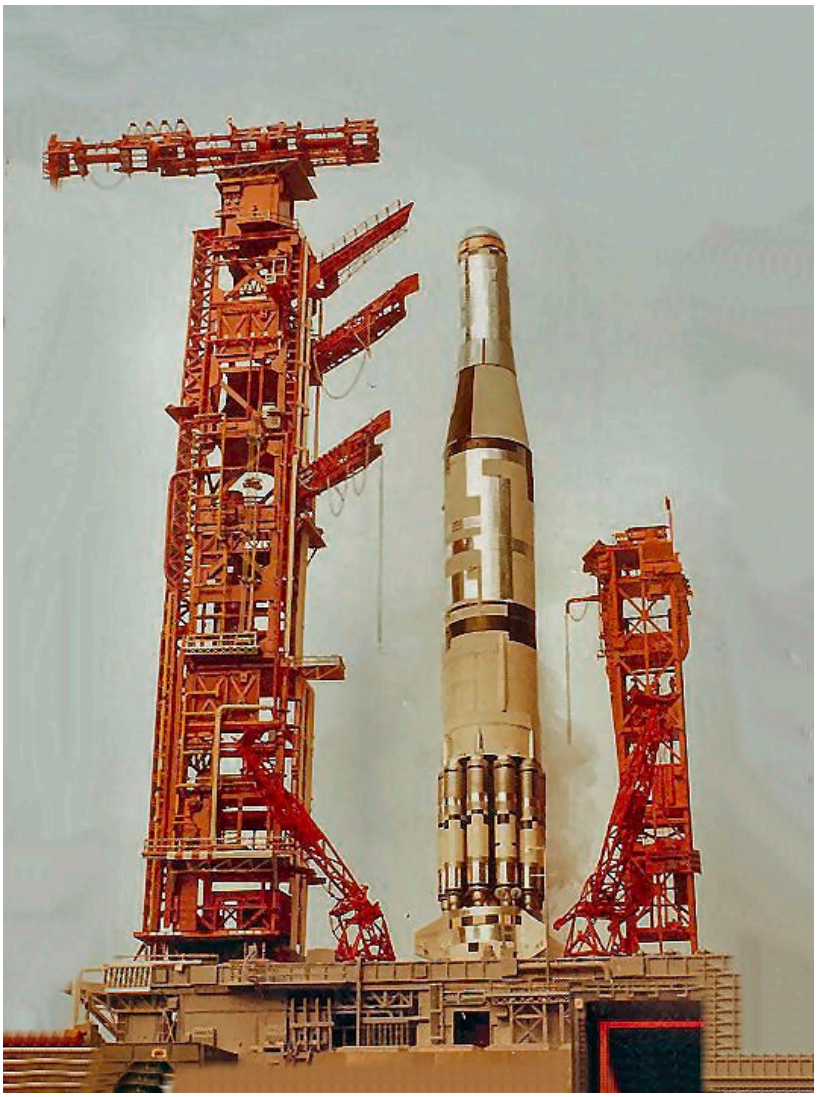
What would you put down as your best accomplishment in your professional career?
Being able to work for 48 hours without sleep (several times) in order to get all the "Space 1999" craft finished in time!

Of all the shows you have worked on which would you say was your favourite?

In many peoples minds you are very well known for your replica "Anderson models", like the Thunderbirds vehicles and the Stingray craft that you did for the comics yet you never worked on these shows, do you find it strange that has happened?
Yes! but it was really a labour of love though. I used to build models for myself purely because I loved the shows. I still have the large SUPERCAR model I built myself in about 1975 when I was working with Reg Hill and he gave me a couple of dozen 10 x 8 photos which allowed me to get the model accurate. Before then I'd built one other model which I did from memory that was at the Blackpool Exhibition, but I don't know what happened to it. But when the comics came out I already had a Thunderbird 1, 2 and 3. I also had a Mole model but as the amount of work and photos increased I built several more models of different scales and also built Thunderbird 5 and 4.
Thunderbird 5 was a real pig to get right as I had to find the hosing that was used all around the craft. I found it in the end ...it was four exhaust hoses from a Humber Sceptre car which I sprayed bronze! The model is still on display at the "Museum of Science and Industry" in Manchester.

Were you a fan of these shows as a kid?
Absolutely! As I've already said, if it had not been for the inspiration I got from seeing Supercar each week I probably would not have done what I do!

Do you find it tricky as a designer and model maker when you have to jump from a project that has very realistic looking ships and equipment like Alien to something very much fantasy orientated like Flash Gordon?
Not at all! It was a nice change to do Flash Gordon after 14 months on ALIEN! But Flash Gordon was a VERY strange film as many of the models were made by studio carpenters while we model makers built benches because we were not in the right union!?! However, I did get to do the Tree-stump creature, Mings Lander, the small War Rocket model, one of Zarkof's ships and the landscape around the greenhouse. Actually there was a really funny side to building this set: We had to use live miniature conifer trees & I went to a HUGE greenhouse place & bought a truck full. We left them planted in their pots and put bags of compost around to build up the earth. Under the hot lights we had to water these trees. And or course what happened? The trees started to spring tiny flowers, grass started to grow in the set and MUSHROOMS appeared on the set overnight! So first thing each morning we had to check the set for fungi & cut the grass with scissors!



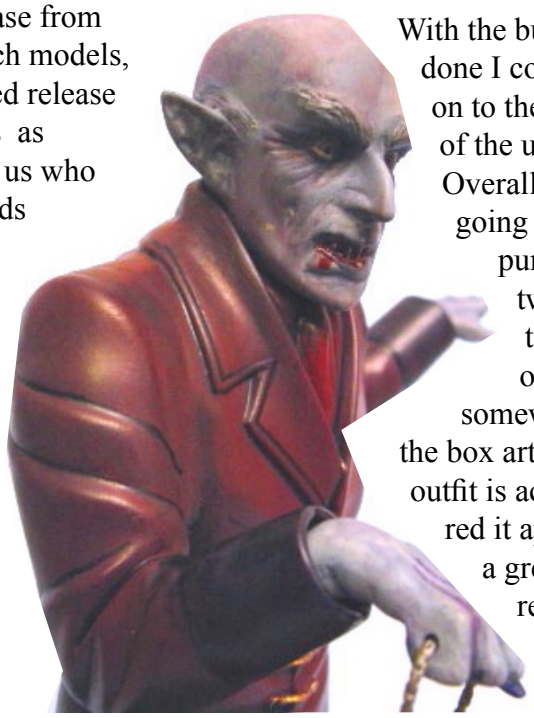
Next Issue the second part of this interview and a filmography of Martin Bowers work

Reviews

Nosferatu from Monarch Models

By Paul Helfrich

Nosferatu was the first kit release from the Canadian company Monarch models, and has been a much anticipated release amongst old fans of aurora kits as many others have said, a lot of us who built the Aurora monsters as kids never thought we'd see such a great addition to our pantheon of monsters coming out in styrene.



The kit comes in a classic Aurora style long box and has all the hallmarks of these classic releases, the size of the figure is roughly 1/8 scale so will fit in very nicely with your other monster kits and as you would expect from this type of kit a base full of creepy-crawlers and some skeletal remains. The fit of parts however, is greatly improved from that of the classic kits of yesteryear everything in this kit goes together smoothly and leave an overall good finish. The only challenges were some fairly large gaps where his arms meet his body that I filled with the aid of the ever trusty Aves Epoxie Sculpt, and the seam along the side of his coat took a good bit of sanding. Other than that, the kit was a dream to construct.

With the building done I could move on to the painting of the undead lord. Overall, I was going for a very purple-blue twilight look to the finish of the kit, somewhat like the box art. Nosferatu outfit is actually a little purpler than the red it appears in my photos. His skin is a grey-blue mix with some blue and red pastels brushed on for a blotchy (or as my wife put it, "bruised") effect. My one small attempt at customization was the addition of a cat which I set facing off with the more typical Aurora-style rat. I've never understood why none of the original Aurora monsters had a scary cat, not even the Witch.

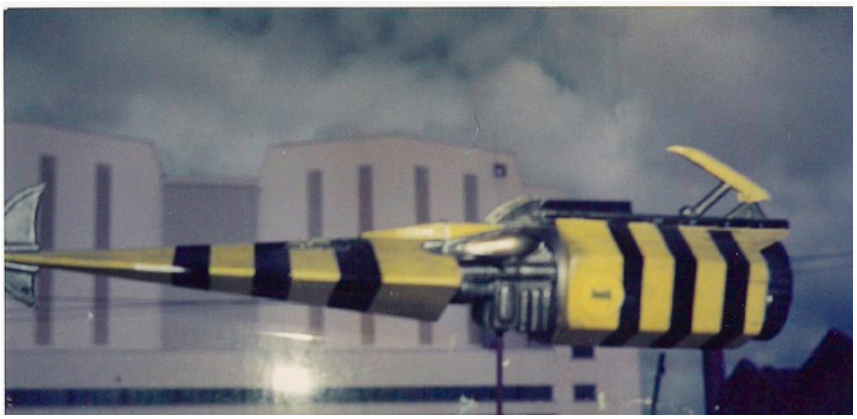
I would rate this kit as an instant classic and a worthy successor to the Wolf man, Mummy, Creature, Dracula, Frankenstein, and all the others from the heyday of Aurora. It is a great to have a styrene kit like this one back on the market. Monarch's next release will be "The Ghost of Castle Mare," and I along with many others are eagerly looking forward to that one as an addition to the old forgotten prisoner kit. Along with the new styrene releases from Moebius models (to include in 2008 The Invisible Man and Conan the Barbarian) we may be entering a new golden age for styrene monster kits. It's a great time to be a modeler!

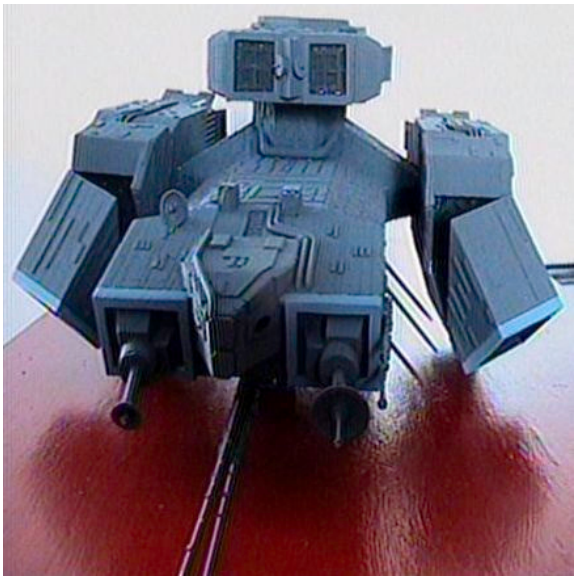
Readers Gallery

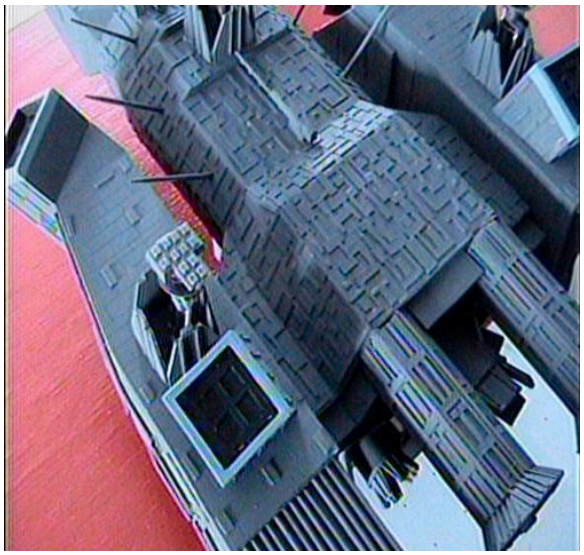
David Bennett

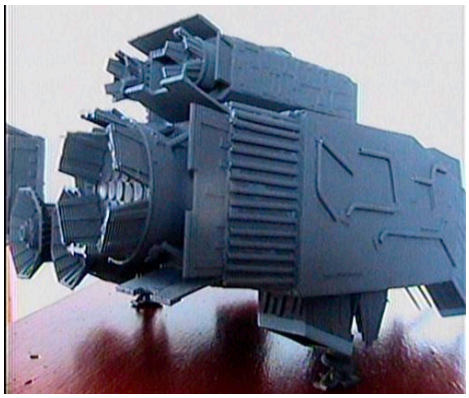
It all started with some quick plans that I drew from a pic in the comic and thought it would make a nice model so I used the dimensions and started building. Most of my scratchbuilds are mainly made from plasticard and this was no different as it's relatively cheap and easy to work with. I found some aircraft drop tanks that I cut down which became Seth's eyes and parts from the engine of a speeder bike kit became the underside of the neck and cockpit. His nostril guns are a pair of '50 cal machine guns from 1/35th tank kit whilst the rear engine is a wheel from an aliens apc kit.

Phil Salton







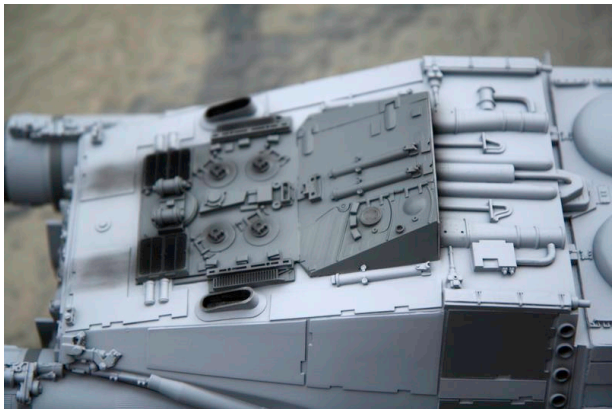


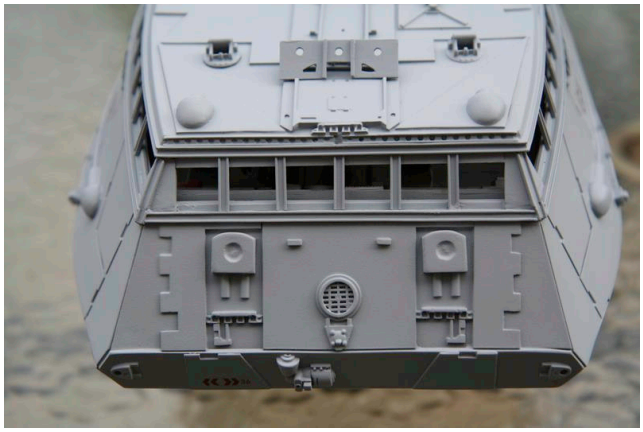
Alien was another one of my favartrite movies that I can look at over & over again ,the ship realy cought my eye ,so i decided to scratch build the Nostromo . did not have much to go on when I Decided to build this ship , I had a few photos from a Starlog Magazine , look at the video of the ship as it passes by on the tv screen, pausing it to get a good still picture to look at . Then i found some blueprints on the internet that cleared up a few hard to see places, i used styrene .060 thick for the main body then detailed it with .040 styrene, some evergreen plastic tubing ,landing gear from the star wars falcon ,over all it turn out not bad, I am hoping to do a large scale one some day around 4 feet

Ken Skiffington

Rob Roberts

Ken Florence





Showcase

“GHOSTBUSTERS” particle thrower build

By

If there’s something strange in your neighbourhood, who ya gonna call?.....well, when I was 7 years old it was my mum who I was calling to from the dinning room table to ask if she had another cereal box or washing up bottle to build my proton packs and other various ghost busting equipment from. Even when my 8th birthday came around and I received the official “the REAL Ghostbusters” proton pack I still wanted to build my own because nothing felt better than strapping on a pack built with my own 2 hands using all kinds of bottles and boxes, lids and tins. Fast forward 17 years and guess what....I’m still at it. Still using parts from all over the house to build my props, still thinking of ways to make the parts look just like the screen used items and most importantly, still getting that kick out of holding or wearing a prop that I have built myself. It was when I ran out of room to display all my current props and decided to sell some on to fund new projects that I asked myself “which props mean the most to me and which should I invest a lot of time, money and effort into?” The answer came in the form of 2 props... the M41A pulse rifle from “Aliens” and the Ghostbusters proton pack. Best to have only a couple of props that mean a heap to me than a whole bunch of them that mean nothing. So it was with that idea in mind that I began on my first proton pack build of the last 17 years and I began with the thrower...

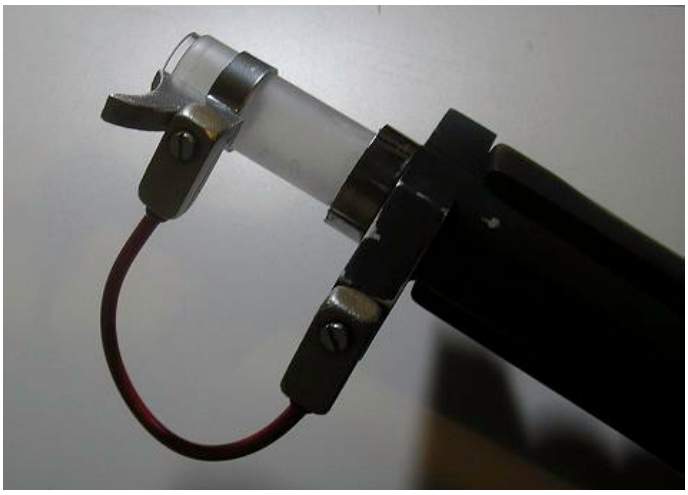
Thankfully, this time around I had access to the internet which means I had access to hundreds of images of the screen used pack, 1:1 scale plans and labels and also other fan made packs so I can see how they tackled certain parts I may have trouble with. With all these images in hand I started the gun build.

Using 3mm thick sheet styrene I drew out the outline of the main body box. Once this was built it would then just be a case of adding on the details. So once all the main box faces were cut from the styrene and superglued together forming a very sturdy box, I then went about adding the details such as the 3 grill holes in the top which were dremeled out and then fine sanded smooth. Great care was taken to assure the 3 holes were identical not only to each other but to the screen used packs. The fact that I was going to have to add a curved edge to the left hand side of the gun box also meant I was going to have to be careful how close to the edge of the body I placed them. Once they were in place and I was happy I began adding the curve. I simply sliced off

the left hand corner to the depth the curve would start and finish on the top face and glued in a piece of PVC pipe to act as a base for the car body filler I was going to apply. Once mixed, I applied the body filler into the gap and got it into the rough shape of the curve before it set. Once it was dry I sanded it into the desired shape and then added fine putty to fill in any large-ish holes that remained. Once it was sanded with a finer grade of sandpaper the curve looked spot on and was blended well with the

styrene sides it was joined to. Other details included the heat sink grill found on the right hand face which was built from slightly thinner styrene sheet and the stalk protruding from the curved area of the body to which the silver “stream control” dial would be later added. This was easy to build as it consisted of simply drilling a hole into the curve the same size as the plastic tubing which was going to act as the stalk and gluing it into place. I used milliput to sculpt a fake weld line around the join as to match the movie throwers. Small wooden discs were also hot glued to the left hand body face to conclude the main body details.

2 smaller boxes were constructed next to be used as the gun’s trigger box and rear instrument bar. Simple enough, just cut the faces from thick styrene



sheet, glued together, sanded smooth and then attached to the main body using 2 part epoxy glue.

For the handle bars I purchased a chrome pole with a diameter of 25.4mm and cut it down to size with a hacksaw then fed it into the main box via two 25.4mm holes cut into the front and rear. Now I must confess I did purchase the hand grips from

a Ghostbusters prop supplier. I felt I wanted them as screen accurate as possible and identical to each other and so buying them ready made was the only way to go on that part I felt. Once they had arrived

it was simply a case of gluing them to the chrome poles using the epoxy glue.

Now it was onto the fun part, gathering found parts to add the remaining details. The clippard valve found on the front face was built from a hotel sized shampoo bottle with a toothpaste tube cap screwed to the top and a styrene base this was then screwed to the main body. The various metal dials and knobs were found in the form of perfume bottle lids, small bottle tops and even a camera lens housing cap!

The final part to build was the guns tip. The metal ring and trigger shaped detail were both made from thin sheet styrene, the brass connectors were sculpted from balsa wood and smoothed out with modelling putty and as for the clear tip itself, it’s a lipstick cap! (My girlfriends NOT mine).

Painting the gun was a rather simple affair, I wanted to try and match the matt, dusty and used look of the movie packs and so I used a black primer for the main colour as this would provide a very matt finish. I then dry brushed the whole prop with a lighter grey colour to bring out the detail and give it that dusty look. Then I picked out certain spots with a brush and light silver acrylic paint to add the paint chips. Labels were simply printed out, cut to size and glued on with PVA glue.

With a quick trip to my local electronics store for the various switches and push buttons the thrower was complete!

Holding it in my hands once complete brought back the same feeling I had 17 years ago after building my last one from a miniature cereal box and now I can’t wait to start on the pack itself!!

Techniques

Silicone Screams

By Darren Llewellyn

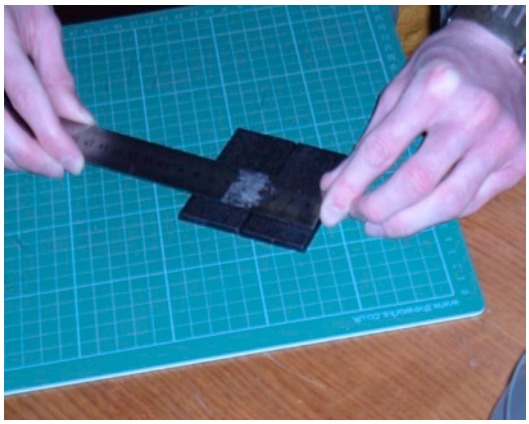
Welcome to the shadowy world of mould making ☺ I decided to do this article because when making a model recently I got to thinking that a lot of what is used by the scratch built modeller is often small and repeatedly used and lets face it those parts we use from kits or shapes from E.M.A are not cheap to buy and can often used in large quantities, now if we had a way to make them for ourselves say we could save our wallets the stress of being emptied on a regular basis. Well what do you know we do have a way to do this?

What we will be looking at here is the basic ways that we can make moulds for casting our parts, there are basically two types of moulds the one part mould and the two part mould but as with everything in the modelling world there is more than one way to do it. Here I will be showing you the methods that I use to make both these type of moulds and they have given me decent results over the years. I will try and make this as general as possible, as there are many manufactures out there that produce this stuff but sometimes I will be referring specifically to what I am using, so please check with the instructions supplied by your manufacturer. I have found that I personally get great results with Hobbytime silicone RTV compound and it is readily available from a lot of sources such as Hobbies, EMA and most model shops.

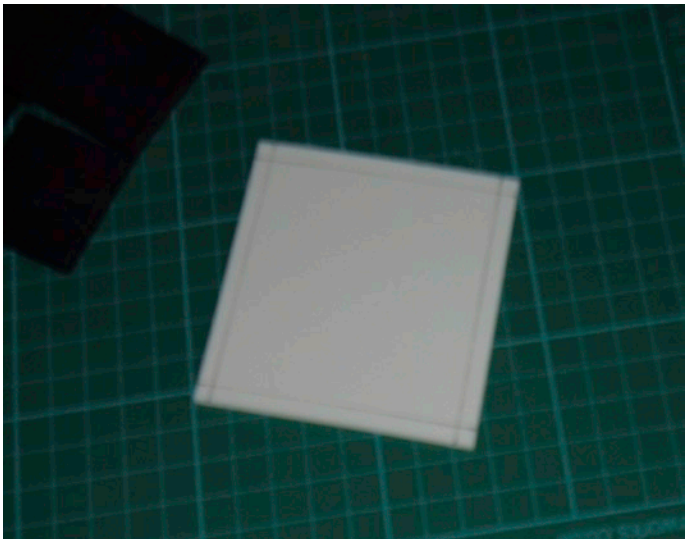
Before we start with making moulds I want to mention that there are some different grades of RTV compound, these grades determine the hardness and amount of detail that the mould will hold, in general a mould that would be great in that it is strong usually will have little detail captured and vice versa, also your choice of RTV compound will be affected by what medium you are casting in, for example a general one would be great for a part like a torso for a model that would be cast in resin or plaster but if you wanted to use white metal or pewter you would need one that was able to withstand those temperatures.

So where do we start? Well the first thing we need to look at is what we will need to start making moulds, obviously you will require silicone compound, some thing to mix it in some lolly sticks, these are great for mixing, some measuring cups, and finally and most importantly some scales, as nearly all the rubber that I have used requires you to measure it by weight. I would definitely recommend that you get yourself good scales, you can pick some very good digital scales for about £10 to £15 these days and they will make your life much easier. Don't forget the gloves and kitchen roll, RTV compound is quiet messy and these are a must.

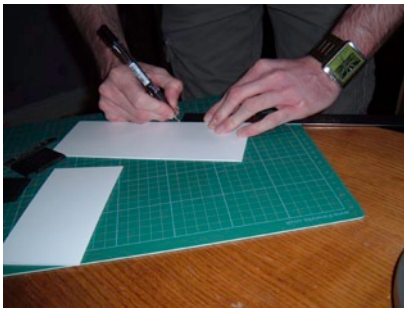
There are basically two types of moulds that you will use most commonly, the one part mould, which is great for parts that have detail on one side or that have a flat bottom, the second is a two part mould and is used when detail is required on both sides of an object, or a certain thickness is required, there are several different ways to go about creating these types of moulds, and this is by no means the definitive way of doing it. Firstly will be looking at how to create a one part mould, for this example I will make a mould of some shapes from EMA, but the principals will apply to any flat backed object.

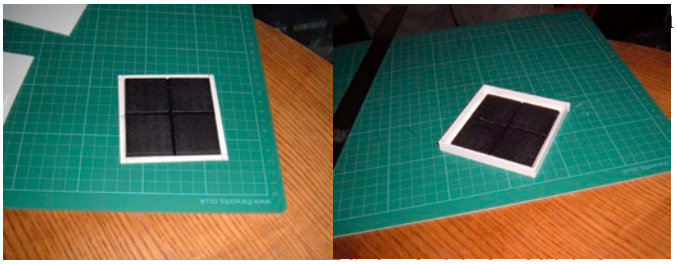


The first thing to do is to create the former, basically a box to hold the RTV compound in while it is setting up, a lot of people use Lego building blocks for this, personally I prefer to use 1.5mm thick sheet Styrene to build the former I feel that this allows you to keep the size of the former as small as possible so not to waste to much material, remember to leave a 5mm border around the outside of the former to make sure the mould will not be too thin and tear when popping the parts out. Now



cut the styrene sheet to size and we have the base of our form, I like to mark in the border so as not too put any parts outside of it. Ok with this done we can glue the parts down, basically this mould will be used to produce the parts needed for one joint, we can now add the sides of the former. When marking the height of the sides to need





out and glue them into place and we have our former completed.

With this done we can now get onto the real crux of the article, the actual mould making, see I hadn't forgotten ☺, ok I'm sure there is a way to do this very accurately and scientifically I will probably get emails about it but I have found that the only way to calculate the amount of RTV compound needed is by guestimation, for this mould I used approximately Xgrammes of compound, ok with our finely calculated amount in mind we need to set out all the stuff that we will need one of the most important things to remember with making moulds is to be organised with everything at hand but not in the way.

What I do is put the cup on the scales and zero it out, then we carefully measure out the amount of RTV compound needed, next we then work out how much catalyst we will need, this is what will allow the rubber to set into a nice solid block, with the hobby time RTV compound I use the amount of

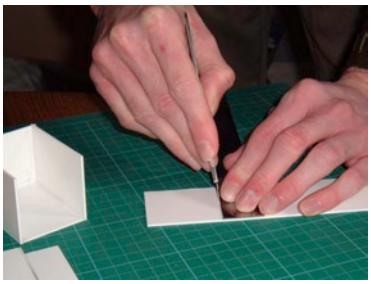
catalyst to rubber is 2% but this will vary from manufacturer to manufacturer they also helpfully tell us that this equates to 80 drops of catalyst for every 100g used, now that we have the amount needed in this case Xdrops we measure that out, now with our trusty lolly stick we

begin to mix the rubber and catalyst together, it is essential that we have a good mix here otherwise

the rubber will not set fully, I would recommend at least 90 seconds to 2 minutes mixing time. With our thoroughly mixed material we can at last begin to make the mould, I like to paint a thin layer on to the parts first to help cut down on any air bubbles next

to the part then carefully pour the remaining material into the former till we fill it up, now I give the former a thorough tap on all four sides to help any air bubbles trapped inside to surface.

All that remains now is the long wait till the mould sets, staring at it willing it to set quicker doesn't work I have tried this many times with no success. The drying time of these compounds varies from manufacturer to manufacturer as does seemingly everything else, but temperature and humidity are also a factor in the setting times, with the brand I'm using it is usually around 3 to 6 hours for it to be

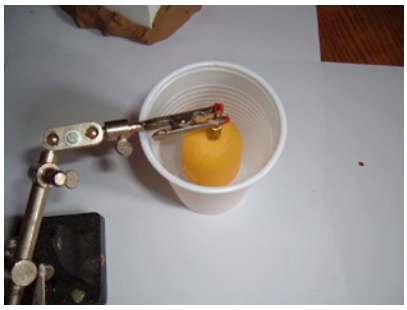


dry enough to remove from the former, I like to use a scrap bit of balsa wood as a "prodding stick" to make sure it is dry. Assuming that it is dry we can now remove it from the former carefully take the sides off, these should pop off at the joints with a little pressure and then slowly and carefully peel the mould from the base and voila we have a one part mould with all the components we need to make our parts.

The next type of mould we are looking at is also a one part mould and is great for parts like heads and tanks, once again we start off with our former I usually use a plastic cup for this as it is easier than creating one for it but if you want to save as much

rubber as you can the steps are the same as for the previous mould. With this mould we need to insert a rod into the Head, this will be used to suspend the part while the mould is setting

up, we will also need to mark some orientation lines on to the rod so we will know where to cut the mould later it is also a good idea to mark a level line as well so we will know where to pour up to, it is very important to note here at this stage, that if the rod is made of wood or other porous material that it should be sealed with varnish, or coated in mould release and the same goes for the part itself. With all the preparation of the part done we can now line it up in the former, you will need to leave a good

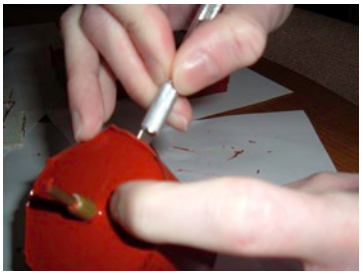


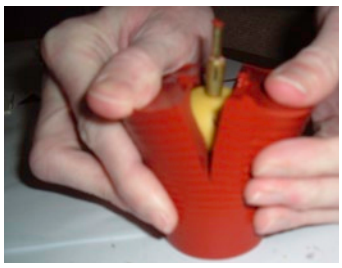
20mm at the bottom of the mould and 10mm all around for safety, I usually use a set of helping hands for this job but many people build a jig for it with our alignment done we can now

move onto mixing the compound this is exactly the

same as in the previous mould once done all we have to do is pour the compound in and fill the mould up to the mark, give it a good old tap and back to the waiting game. 3 to 6 hours later it's out with the prody stick and checking to see if we are set.

I would usually recommend leaving this type of mould overnight to make sure it is thorough set though, now we need to remove it from the former if like me you have been lazy and used a cup the likely hood is it will need to be cut off. We now have our mould with the part firmly trapped inside so now we need to release the part, this is where the two vertical marks on the rod come in, we will use these as a guide to cut down the sides of the mould to release the part. Carefully cut down along the path of these lines only as far as you think will be needed to get the part out it is better to cut this too little as you can always trim a bit more now the part is out and

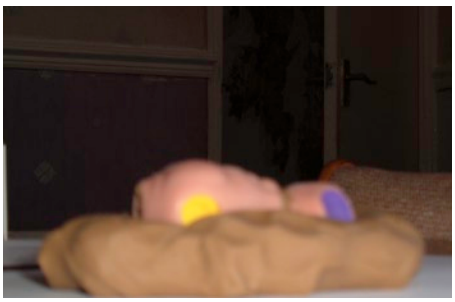




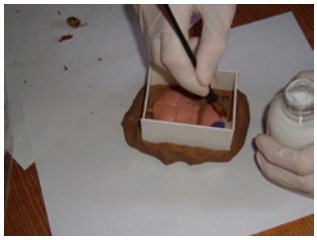
we have our head mould ready for casting with.

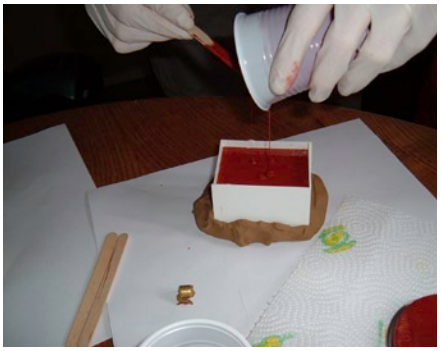
The last type of mould we are looking at here is a two part mould which as it's name suggests comes in two separate halves that join together to form the mould once again we start off with a former that is slightly larger

than the object to mould but in this instance we won't be needing a base. Ok now this method is ideal for hard parts first off we need to create a base of clay and push the object approximately halfway into the clay then use the former to mark the clay so we can cut a scrap bit of material such as plastic or brass section to create the pour funnel, with small parts the addition of vent holes is a must but with larger pieces this can be cheated on slightly. Ok next we need to place the pour funnel into place and then mark what are called keys, these are used to help align the mould when casting, a piece of doweling or sculpting tool is ideal for this then place the former so that half of it is protruding from the clay. It is very important at this stage to coat the clay with mould release as it is porous and RTV compound will adhere to it like super glue to fingers after it has been coated

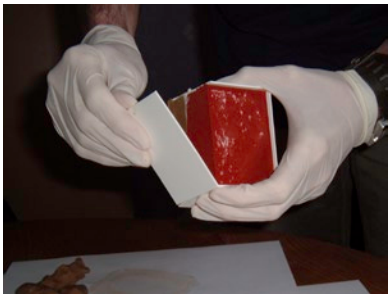


the next step is to once again need to mix up the rubber as in the one part mould, and again paint a coating of it onto the part and then pour the rest over it to fill the former, leave to dry.

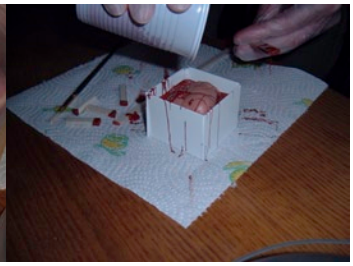




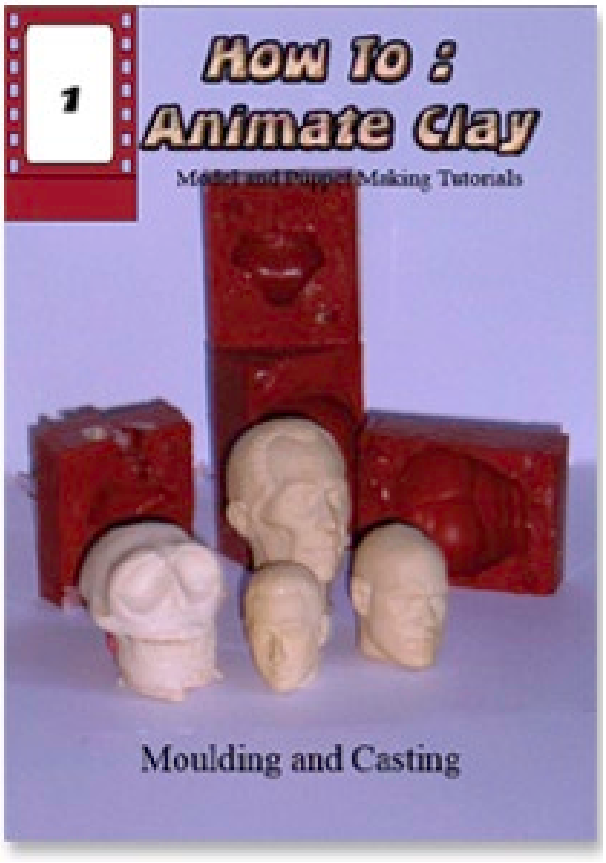
Stage two of the two part mould now that the first half of the mould is dry we need to carefully remove the former this will be reused when creating the second part of the mould, so keep it safe. You will now need to remove the clay from the bottom of the mould, if you have used enough mould release this will be easy, if not,



welcome to hell but have heart it will eventually come off and can be cleaned up so all is not lost, with the mould free place it back in the former and once again coat the rubber with mould release and then mix up the next batch of rubber and repeat the steps that you did in creating the first part of the mould and then yes you guessed it it's back to the waiting game☺ break open the former and take the mould out, this should be easy due to the barrier of mould release and then all that is left is to remove the part and there you have it your two part mould ready and waiting.



There is one quiet important thing that must be added here and that is although the moulds are set they still need to cure, this is true for nearly every manufacture, though some don't need to, again you need to check the instructions for details on this but most need 24 to 48 hours curing before they can be used. Ok so there you have it a basic look at mould making, next issue we will go on to cover casting using these moulds and a look at the pitfalls that exist there, see you in 60!



Check out this site for more info on moulding and Casting and other tutorials soon

Continued from 6
I found that to be a cool idea and it fit well with the rest of the design. I resized the image to the size I wanted for the shield and printed it out. I then made a dome shape from plasticine, soaked some card in a solution of water and PVA glue and placed it over the plasticine dome shaped mould and left it to dry - this would form the basis of the domed shape shield. Once dry, I removed the card 'shield' from the plasticine, cut out the printed 'hawk face' image and glued it to the 'shield' and then cut round the shape - I cut the wings from the top and placed them at the bottom of the shield. Using the image glued to the shield as a guide, I built up the pattern, following the lines on the image, using Milliput and putty - with a few changes here and there. The following photo shows the finished sword and the shield prior to painting

When the putty had hardened, I sprayed the shield

with a coat of primer and painted it in pewter, silver and gold (to match the sword) and added a 'ruby' to the centre using a base of silver, coated in Humbrol Clearcote red. I cut a small oval of clear plastic and placed it over the red - to give a glassier look to the gem. For the parts that look like eyes, I cut 2 ovals from Mirror on a Roll and stuck those on to add more shine. For the handle, I painted a piece of elastic in a tan leather colour and stuck it to the back. I found later that as thought, the hand was positioned wrongly to actually hold the shield and as I didn't want to permanently fix the shield onto the figure, I cut a diamond shape slot in the back so the fingers would go through and the handle would then sit between the thumb and index finger - basically, she appears to be 'holding' the shield, but the shield is in effect, hanging from the fingers in the slotted part

Now the hair... If you are shocked easily, or of a demure, chaste nature or have a severe intolerance to bad hair days - look away now!
Things are about to turn nasty - there will be tears before bedtime, there will be shocking scenes and all the horrors of the night will be unleashed to the sound of ear piercing screams... oddly though, there's no blood! A fellow SFM:UK'er once mentioned the yin and yang of modeling... well, so far I'd had plenty of yang - it had all gone so well, maybe too well... Plaiting a piece was easy, making the ponytail was easy - putting it all together was quite a different story, with more than a fair share of yin

First, I needed an adhesive up to the job. Using an off cut of resin I tried various adhesives - Bostik all purpose glue was messy and have since found that these types of clear, all purpose glues can yellow over time. Superglue - fine if you want hard hair. Liquitex Matte Medium Gel - it's expensive stuff, and although I did try some, the synthetic hair wasn't having any of it! Throw in first temper tantrum at this stage! Rattles were flung from proverbial prams and paintbrushes hurled across the room - javelin style! Enter Bostik Resin W wood adhesive...
Slowly, patiently, strand by strand, I tamed the hairy monster and finished the front fringe piece, working from the tips, upwards - adding adhesive to the ends of 1mm wide x 20+ cm locks of hair cut from the white synthetic hair extensions (tip: cut as you need it, don't pre-cut in advance), placing them in position and building up after allowing each piece to dry. On a roll, I started placing pieces at the front edges of the head, long enough to reach the hole, going round the head to the nape and back to the top - so that she had a halo of sticking up hair around the hairline - like a monk Troll!
I left it to dry overnight
Cue a scream that'd scare a banshee! During the night, she'd developed a case of elf pattern baldness! Some locks had come away as if never stuck, and I had to re-start the whole procedure again. This time I applied more adhesive to the length and to the head, and stuck it down all the way to the hole. Painstakingly slow but this is where patience is a virtue in model making. Eventually, after deafening the entire neighborhood, that stage was complete, as below in the photo, showing the front piece now added

After shading and highlighting using chalk pastels, my elf was ready to be partially assembled. My hubby had made a nice base for the model from Perspex (although I must say at this point he has threatened to take my tools away if I ever mention making a model with hair again!). Secured on her base, I now fitted the pauldron's, hands and the tasset, which fell naturally in to place. All I had to do was to complete the hair...

Pandora's Box has nothing compared to the evils of this hair! My beautifully made ponytail fell apart as I tried to replace the wire holding it together as the twisted ends weren't long enough to go into the hole! The ponytail was made by folding a thick and long piece of hair in half, with the top loop (fold) over a length of thin gauge wire, which was then twisted together to hold the hair and to form the 'pin' to insert into the head. I pulled the two halves down together to straighten the ponytail and used white thread to bind it into shape, near the top. However, I had to remove the original wire to replace it with a longer piece... time to hide the knives and other sharp implements along with everything breakable, then soundproof the house and flee the country! Model Making Mum is morphing into a monster! Removal of the first piece of wire had a knock on effect with the white thread binding - it came free and was followed by a downpour of liberated hair... I think the red mist came next

Having re-made the ponytail, I fixed it to the head with adhesive, using the wire as a pin in the hole drilled in the head. Things were getting better, as this fitted well, and once the glue had dried, I wrapped and glued the plaited hair around the binding to cover it and complete the look

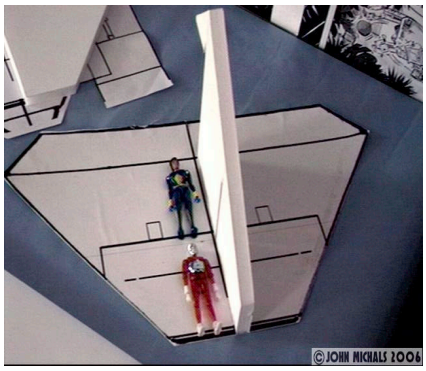
After fixing her head in place, I tidied and trimmed her hair, and added her shield and sword – My kneeling warrior elf was complete!

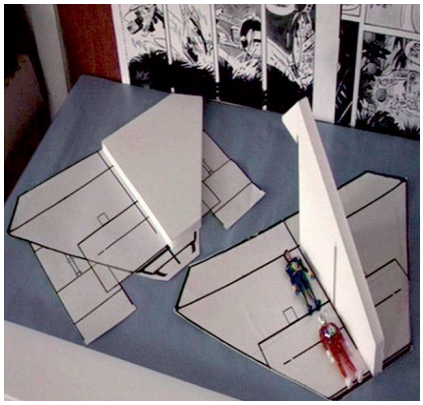
ScratchBuild

How to Skin a starship!

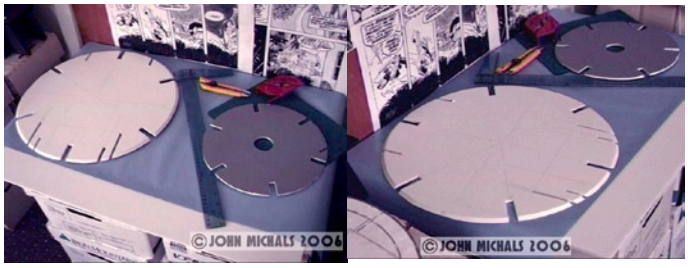
by John Michals

When I last left you we had only completed the engines. Now we turn to the main hull. Take the scaled up drawing of the ship and make a template for ½ the cone hull, (Fig 32C). Once we have this profile it will be traced to a sheet of foam board at least 6 times creating what is sometimes referred to as ships ribs, (Fig 31C). Once they are cut, we determine the best locations for circular decks along the height of the cone. I suggest lining the first one up with the ceiling of the bridge. The second should be at the base of the belly gun turret. A third would be helpful. You could put it somewhere near the middle but I suggest nearer to where the bottom of the engine joins with the cone hull; maybe at the floor of the bridge. If we were building an interior more could be added and the positions could be different.

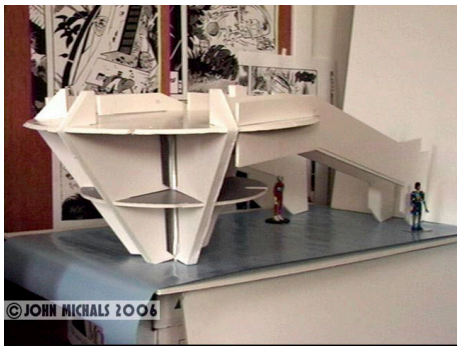


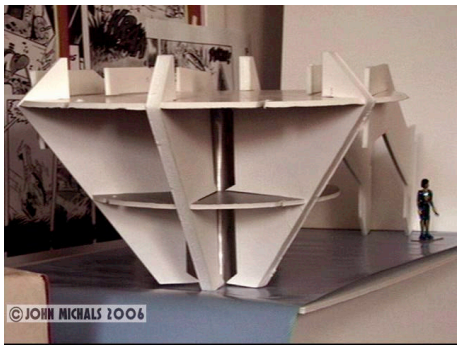


Measure the radius where the circles are going to join to the triangular ribs. Double that and you have the circumference of the circles you need to cut out of foam. Also we will plot where the bridge ceiling or bridge floor will be and extend rectangles from the circular decks to provide for them. Once you have the circles cut you must plot out where they will join to the triangles. I recommend making marks on the circular parts with a protractor at 40, 90, 140, 190, 240 & 290 degrees, (or if you think of a clock face: 2, 3, 4, 8, 9 & 10 O' Clock positions), (Fig 033C & 034C). As we get further along in the assembly we may have to cut into some of these triangular sections to allow other parts to fit.



Once you have the rib sections and the circles cut out you slots must be cut into each piece so they may slide together and form a sturdy hull structure. I recommend the slots being longer in the ribs rather than the circles. The circular decks will carry the load of weight from the other parts which attach to the hull such as the bridge, rear hatch and engines. When completed it will all stack up in layers. I can't recommend how long the slots on each piece should be but just use your eye and a ruler and test cutting out matching slots on 2 pieces until they slide together smoothly. Then copy those cuts to all the pieces. Once you have all the mating points cut out assemble the hull and you will have a skeletal cone structure, (Figs 50C & 51C). At this stage if the structure is strong enough you could forgo the gluing process. I have built 5 test models so far and found them all very strong. If you feel you must glue this assembly together-wait until the end as more pieces have to be attached and we may need

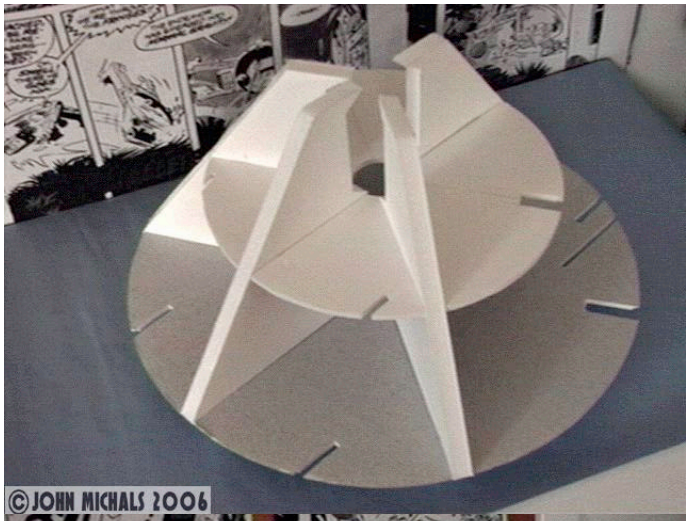


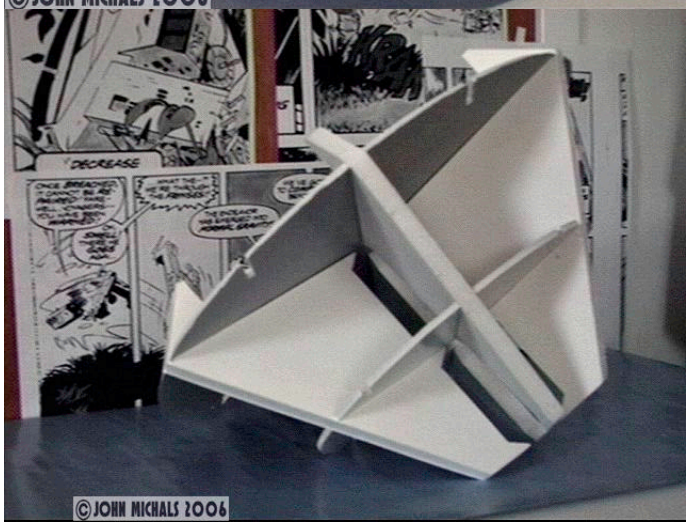


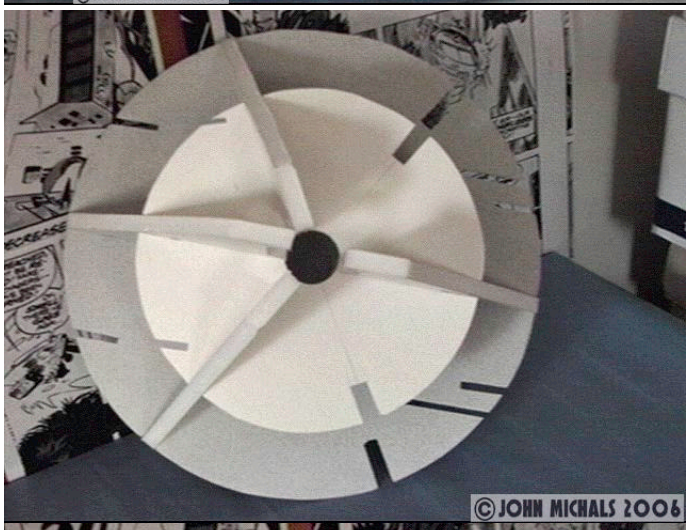
to disassemble this structure more than one time to make adjustments.

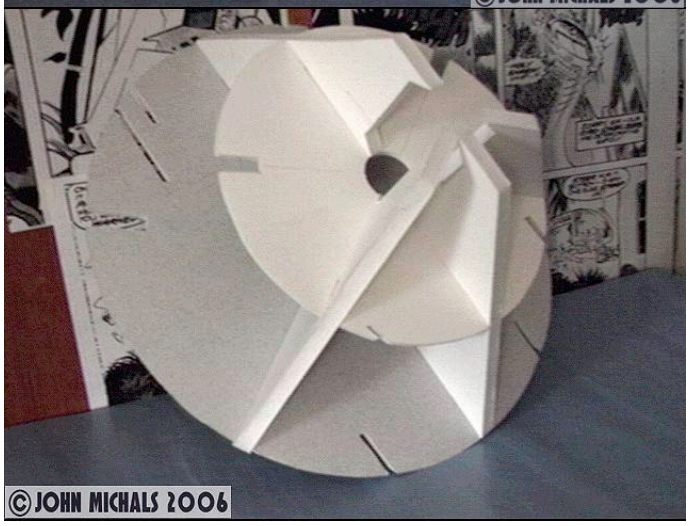
Take some flexible cardboard or card-stock, (we call it Oaktag here in the states-you can get it at every supermarket and candy store), and wrap it around the hull. Using push pins, carefully insert the pins into the outer edge of the triangular ribs to hold the cardboard in place as you wrap it. Once the entire hull is wrapped you trim the excess at the top and bottom. As it is this would make for a pretty good hull but we can go one better. Once trimmed trace where the ribs were, (either free-hand or with the aid of a ruler). Then remove the push pins and take the cardboard off the skeleton hull. Unfurl it and lay it down on some large foam board sheet nice and flat. Trace the outline of the wrapping on to the board. Once you have the shape of the wrap on the foam board, measure it and even it out where you trimmed.

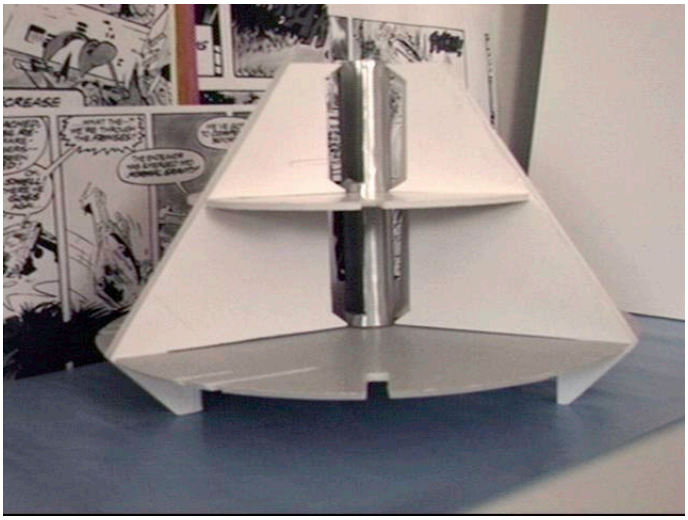
Using the lines you traced as a guide, take your straight edge draw some lines between the markings where the ribs showed up when the wrap was around the
hull. These will not be parallel lines. Try to mimic the radiating pattern between the rib markings. If you make a very small model you can fasten the foam down and plot a center spot to position your straight edge; similar to where the hands of a clock emanate from. Otherwise you just have to use your best guess. Using the mat cutter set the blade for a beveled edge. As in the engine assembly last issue we want to let the blade cut 2/3's into the foam-but not all the way. We are not cutting the foam-we are scoring it. If you can score from top to bottom and in a similar radiating pattern you will notice the flat foam board now starts to bend and go limp. The more lines you cut between the rib spacing's, the more the foam will bend. There will be a limit to how many lines you can cut but you will see: the more-the better. If you don't score as many lines just make the foam and put some pressure on it a bit so it holds the shape. Once you are done you can attach the foam to the cone structure. As we still have pieces to attach I think using push-pins is best and it can be glued later. You now have a round, cone hull. (Figs 38C to 46AC).

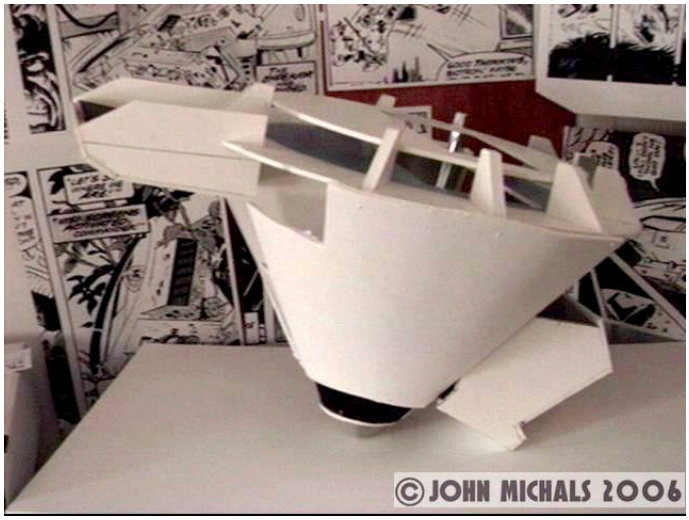








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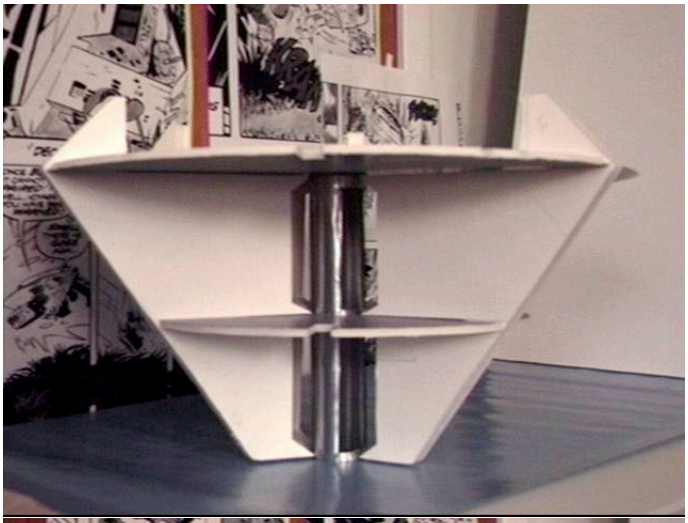

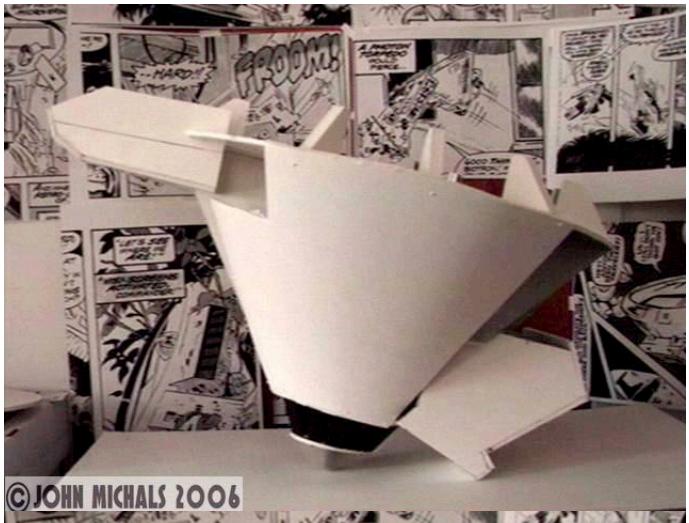
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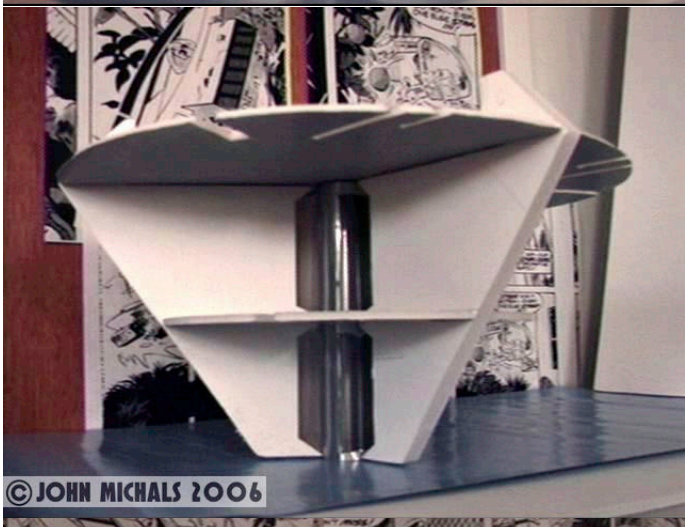
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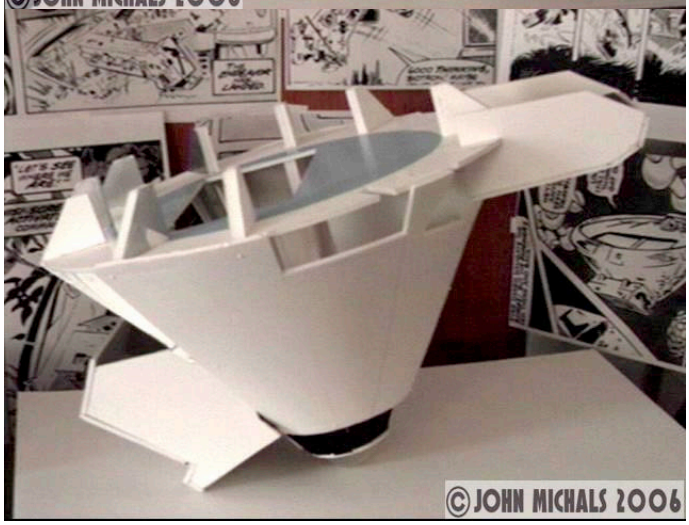
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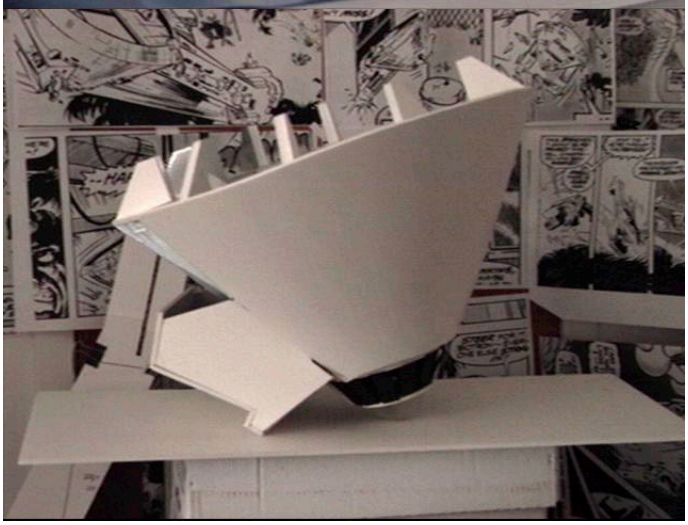

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Quick Builds

Making A Padd

By

Space—the final frontier. These are the voyages of the starship Enterprise. Its five-year mission: to explore strange new worlds, to seek out new life and new civilizations, to boldly go where no man has gone before. These famous lines that began in the 1960's spawned numerous books, graphic novels, movies, toys and models. But curiously the one model not made were the Personal Access Display Devices (PADD) seen through out the Star Trek Next Generation, Voyager and Deep Space 9.

In its primary role aboard a starship, the personal access display device (PADD) is a hand held control and display terminal. Small, easily managed terminals and computers are in daily use throughout Starfleet, as a natural response to crew members' needs to execute hardware functions in a variety of locations, and manipulate visual information and communicate that information to others aboard ship. Access to the Enterprise computers and other pieces of equipment can be accomplished through the usual control displays and larger screens, of course, but the PADD has become a convenient adjunct to those panels.

The standard small PADD in the Trek universe is 10x15x1 cm and is constructed from three basic layers of embedded circuit-composite material. Seen most through the Star Trek Series is the basic PADD model. Although for this project Styrene or acrylic sheet will be out medium of choice. This is a great project for the beginner and advanced modeler as there are few parts, 3 to be exact, and requires very few tools to complete. If you use the dimensions above you can recreate the look of the PADDs seen on Star Trek. Best of all it is a very inexpensive prop that is easily made and looks cool lying on your desk or displayed with your collection.

This template below shows the simplicity of this project, I have in the past hand cut from styrene and shaped with dremel tools, files and sandpaper but gave that up in favor of having my designs laser cut from smoked acrylic. Finding a company that will laser cut for you is not too hard, just Google Laser Cutting and you should find everything you need, although checking with your local hobby shop or hobby prop forums such as www.propcircle.com or www.therpf.com will net you a wealth of knowledge.

The Acrylic used for this project is 3mm (0.118") thick. I believe it's extruded Once you have decided on the design to cut and have had it cut. The next step is to actually build the Model. To continue you will need....
Sandpaper (ranging from lower to higher grit)
A decent Sandable Automotive Primer.
Some (Star trek) Silver, and Possibly Gloss Black Automotive Paint
A reasonable Set of Clamps or Vice.
A Computer with a Color Printer and apropriate paper.
(Best results found using High End Photo paper and a little Labeling Paper For the stickers)
A Dremel
A roll of muffler tape (metalic tape)
Now just because you dont have your Cut Padd yet doesnt mean there is nothing you can do. You still need graphics, and remember the size is based off your own numbers, so no suprise measurements. What I personally find would be the best method for creating graphics, Is Download Free Wall Papers, or given the time there are some great Lcars Programs out there to allow you to build from scaratch. Most people simply use the graphics supplied by the seller. Its a Personal Choice. So the only advice I can give is I use a Program Called Poster Printery 4, I find it nice because I can edit resize and adjust all in one program.You shouldnt Actually Print your graphics until all has gone well and the Padd is in your hands. Remember that the type of paper you use to actually print on can mean a lot towards the look of your project. Once you Have confirmed the shap and size

of your Padd has been cut correctly you can finally size to fit and print out your graphics. ALWAYS Size and fit your Graphics BEFORE any further work is done, as doing so after can scratch paint or cause similar problems before finishing.

When I am actually printing out My Padd Graphics I do it on Kodak Premium Photo Paper, on a High quality Photo Printer.... any flaws or size issues I Re-Print so everything is Good at the final stages. For the stickers Like medical Symbols I use a cut to size Label Paper, however there are Wonderful websites on creating these kind of things with Vinyl. http://www.mattmunson.com/props/tutorials/vinyl_faq/index.html However I find the true trick to getting the Graphics to look like the Digitally enhanced screen used prop Laminate them."

The next step is to get the Padd pieces ready. Bevel the edges of the top and bottom plate with a file or sandpaper going from a lower too higher grit number until you get the desired results. You should do this to make sure all the pieces mate properly as well.

A really well sanded piece can make it look like it was made in the Starfleet Engineering Departments. Once you have done this the next step is to prime these pieces. Since you will be gluing these pieces together you will want to mask the areas you will be gluing together. You will receive best results if you suspend the pieces on blocks. Many people have found that you will want to use Plasti-Kote (http://www.plastikote.com/plastikote/splash/index.jsp) or Krylon (http://www.krylon.com/products/fusion_for_plastic/) for best results. I have found that instead of masking my pieces I can just trim the coverings that come with my Padds, then I only have exposed what I want primed and Painted. You should apply light coats and several of them this means that you can wet sand any problems out between coats. While many people will claim to have the correct paint codes to use, they are every changing as they are automotive paints. The BEST suggestion I can give is to take a picture and match it up to the color of your choice.

We are now coming to the good part, final assembly. Remove any masked off areas and sand them rough so that the glue will hold. When assembling the use of a 5 minute epoxy is recommended as it gives you time to align the pieces where you want them to be instead of using an instant glue and make a mistake and have to start all over again. When I assemble my pieces I have noticed that if your graphics fit between the pieces the glue ill break and eventually become a problem if it doesnt do so from the beginning. So Make sure your graphics fit inside the cut holes, and for best results do NOT include them in the assembly stage. I prefer to use a silicone based glue on my projects, because if it comes out of the edges it can be trimmed away easily as well as it is see through so mistakes are less noticeable. The assembled pieces still need to be sealed with a CLEAR coat to make sure they enjoy improved durability particularly in the rain.

I found that if the Stickers (not the graphics though) should be applied just prior to sealing, thus trapping the sticker into the project and waterproofing it if it is not Vinyl. Once the sealer is on THEN I place my graphics. This keeps them looking like the touch screens we intend to make. The Muffler tape is perfect for the on off buttons we see on the screen that appear to be metalic in nature. Cut to size then use its own adheisive to place it. An added bennafit to Lamination is you have a little play with these stickers if they dont place perfectly. And the bonus to using the Silicone glues is they shift and flex back to position, there is an added shock your prop can absorb.You now have a prop that will amaze your friends, one of the great things about the Star Trek Universe and of the PADD's as well is there are so many different designs you can make as seen in the different series or design a unique one for yourself.

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